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PARFOMAK, ANDREW N. NORRIS MCLAUGHLIN & MARCUS PA 875 THIRD AVE, 8TH FLOOR NEW YORK, NY 10022			EXAMINER JACOBSON, MICHELE LYNN	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7, 9, 10, 12, 19, 20, 25-27, 29, 33, 34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duffield et al. WO 01/36290 and Waeschenbach et al. WO 00/06688, U.S. Patent No. 6,800,598 used herein for reference (hereafter referred to as Waeschenbach and Chun et al. U.S. Patent No. 5,133,892 (hereafter referred to as Chun)).

3. Duffield teaches rigid water soluble containers comprising polyvinyl alcohol (PVOH) that may be utilized to deliver detergents, such as dishwashing compositions into aqueous environments. (pg. 8, lines 8-14) The container recited comprises a self supporting receptacle part and a closure part formed of a water soluble polymer wherein the closure part dissolves before the receptacle part. (pg. 8, lines 16-24) In one embodiment, the PVOH material is recited to be modified to dissolve at different rates under different conditions including the pH of the aqueous medium. (pg. 12, lines 8-11) The closure part of the container may be made of the same material but thinner than the rest of the container such that it dissolves first, or may be made of a material with higher solubility than the rest of the container. (pg. 16, line 30-pg. 17, line 2) Duffield

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also discloses that the container may be configured to have more than one compartment. (see Fig. 4)

4. Duffield is silent regarding what PVOH materials that are sensitive to pH would be useful for the invention and the disposition of a wax layer over the closure.

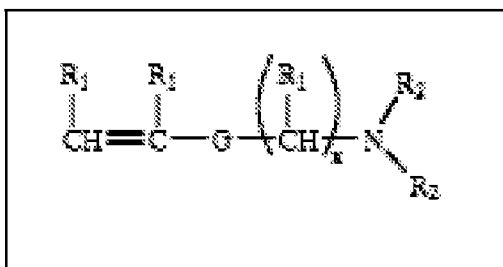
5. Waeschenbach teaches a composition for coating a detergent for delayed release within a wash cycle. The composition disclosed can incorporate a polymer such as PVOH and is sensitive to the pH of the surrounding environment. (Col 5, lines 25-28) "In a preferred embodiment of the invention the envelope incorporates at least one compound which for the concentration of the specific compound at the end of the main cleaning cycle of the dishwashing machine is not or is only slightly soluble and at the concentration of the specific compound in the clear rinsing cycle has such an adequate solubility that in the clear rinsing cycle it is so substantially dissolved or detached from the core or cores that an at least partial escape of the core material into the clear rinsing cycle medium is possible.

6. Preferably the solubility of the compound increases with decreasing  $\text{OH}^-$  ionic concentration and therefore decreasing pH-value in the surrounding medium. In particularly preferred manner the compound at a pH-value above 10 has little or no solubility and at a pH-value below 9 has an adequate solubility to ensure a substantially complete dissolving or detachment from the core or cores in the clear rinsing cycle, so that an at least partial escape of the core material into the clear rinsing cycle medium is possible.

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7. Preferably the compound incorporates a polymer, preferably a pH-sensitive polymer, which comprises at least one repeat unit, which has at least one basic function, which is not part of the polymer backbone chain. In a preferred embodiment the polymer comprises at least one repeat unit, which is based on a compound selected from the group comprising vinyl alcohol derivatives, acrylates or alkyl acrylates, which have said basic function.

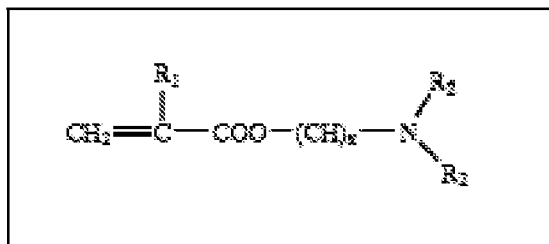
8. According to the invention the polymer is a carbohydrate functionalized with said basic function. The aforementioned basic function is preferably an amine and in particularly preferred form a secondary or tertiary amine. In a preferred alternative the repeat unit is based on a compound with the following formula III:



in which G is a linking group selected from  $-\text{COO}-$ ,  $-\text{OCO}-$ ,  $-\text{CONH}-$ ,  $\text{NHCO}-$ ,  $-\text{NHCONH}-$ ,  $-\text{NHCOO}-$ ,  $-\text{OCONH}-$  or  $-\text{OCOO}-$ ,  $R_1$ , independently of one another, is hydrogen or an alkyl group with 1 to 3 carbon atoms,  $R_2$  independently of one another, hydrogen or an alkyl group with 1 to 5 carbon atoms and x is an integer from 1 to 6.

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Preferably the repeat unit is based on a compound with the following formula IV:



in which  $\text{R}_1$ , independently of one another, is hydrogen or an alkyl group with 1 to 3 carbon atoms,  $\text{R}_2$ , independently of one another, is hydrogen or an alkyl group with 1 to 5 carbon atoms and  $x$  is an integer from 1 to 6. (Col. 5 line 15-Col. 6, line 33)

9. Both Duffield and Waeschenbach are directed towards compact systems for dispensing dishwashing detergent by means of the dissolution of a protective layer surrounding the detergent. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted the known element of the pH sensitive PVOH composition recited by Waeschenbach for the pH sensitive PVOH composition recited by Duffield to obtain the predictable result of producing a detergent container that has solubility under pH conditions of less than pH=10.

10. Duffield and Waeschenbach are silent regarding coating the detergent containers and tablets recited with wax.

11. Chun teaches a dishwashing detergent tablet that releases various ingredients sequentially. (Col. 1, lines 6-12) Chun also discloses that it is beneficial to coat the barrier layers that provide the sequential release of the detergent with wax in order increase the storage stability of the tablet. (Col. 9, lines 24-27)

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12. Chun, Duffield and Waeschenbach are all directed towards dishwashing detergent dispersal systems comprising water soluble components that dispense their components under specific conditions. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have coated the container as taught by Duffield produced from pH sensitive PVOH composition of Waeschenbach (which is the same as that claimed by applicant in claim 1) with wax as taught by Chun in order to obtain the benefit of increasing the storage stability of the container. This obvious modification of the invention produced by the combination of Duffield and Waeschenbach would have been the same as that claimed by applicant in claims 1-5, 7, 9, 10, 12, 19, 20, 25-27, 29, 33 and 34. Regarding claim 36, Duffield recites multi-compartment sealed containers and therefore reads on the limitation of an additional sealing means recited in claim 36.

### ***Response to Arguments***

13. Applicant's arguments filed 11/6/09 have been fully considered but they are not persuasive.

14. Applicant asserts on page 6 of the remarks that "Duffield is directed to a water-soluble container and has absolutely nothing whatsoever to do with a closure adapted for a bottle". However, it is unclear to the examiner how a container differs from a "bottle". The recitation of bottle does not impart any structural limitations to the claimed invention aside from the fact that a bottle is interpreted to be an article capable of containing something, i.e. a container. The container of Duffield, although recited to be

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water-soluble, nonetheless, possesses an opening which is covered by a closure film.

Therefore, applicant's assertion is not found persuasive.

15. Applicant asserts on page 6 of the remarks that neither Waeschenbach nor Chun are directed to bottles. However, note that while Waeschenbach nor Chun do not disclose all the features of the present claimed invention, Waeschenbach nor Chun are used as teaching references, and therefore, it is not necessary for these secondary references to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather these references teaches certain concepts, namely, useful water soluble PVOH compositions and the utility of coating detergent dispensing articles with wax in order to increase the storage life and in combination with the primary reference, discloses the presently claimed invention.

16. In response to applicant's argument on page 7 of the remarks that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).



17. Applicant asserted unexpected results stated on page 7 of the remarks and the examiners opinions as to the deficiencies thereof have been addressed in the previous office actions and will not be revisited herein.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHELE JACOBSON whose telephone number is (571)272-8905. The examiner can normally be reached on Monday-Thursday 8:30 AM-7 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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